

FEATURES

- 4 ÷ 20 mA current loop self-powered
- Visualisation configurable in engineering units
- High accuracy and linearity
- Measure freezing by command
- EMC compliant – CE mark
- DIN 36 x 72 mm housing
- Mounting on panel in according to DIN 43700 standard



GENERAL DESCRIPTION

The DAT 733 is a current loop, 3.5 digit LCD digital indicator with high accuracy and reliability. By dip-switches and potentiometers, it is possible to set the visualisation of the input measure in engineering units in a range included between 100 and 2000 points, to set the zero point between -1999 and 1999 and the position of the decimal point. The DAT 733 is designed for the mounting on panel in according to DIN 43700 standard. Moreover is available the complementary function of measure freezing (HOLD). The DAT 733 is in compliance with the Directive 2004/108/EC on the Electromagnetic Compatibility.

USER INSTRUCTIONS

The digital indicator DAT 733 must be connected as follows. Connect the active 4÷20 mA current loop between the terminals T1 (IN+) and T2 (IN-). On the display, will be visualised the value of the loop current in function of the selected visualisation. The instruments is internally protected against reverse polarity. The device causes a voltage drop of 2.5 Vdc on the loop, then it is necessary to considerate this parameter to calculate the minimum power supply value for the transmitter located in the loop. The complementary function HOLD could be used to freeze the measure at the last value detected. To use this function connect the terminal T3 (HOLD) to the terminal T4 (COM); in order to avoid damages for the device, it is recommended to active this function for a maximum time of 2 minutes. To configure, calibrate and install the device refer to sections “Configuration and calibration DAT 733” and “Installation Instructions”.

TECHNICAL SPECIFICATIONS (Typical at 25 °C and in nominal conditions)	
Input	
Signal type	4÷20 mA from current loop
Voltage drop	2.5 V
Maximum input signal	50 mA
Visualisation settings	By dip switch and regulation by potentiometers
Zero value visualisation range	From -1999 up to 1999
Scales of visualisation	Scale 1: from 100 up to 700 points Scale 2: from 700 up to 1400 points Scale 3: from 1400 up to 2000 points
Decimal point setting	From rear side, by dip-switch, on three decades
Out of scale indication	High: 1(on left side). Low: -1(on left side).
	<div style="display: inline-block; border: 1px solid black; padding: 2px 10px;">1</div> <div style="display: inline-block; border: 1px solid black; padding: 2px 10px;">-1</div>
Visualisation	
Type of visualisation	Static polarised Liquid Crystal Display for wide angle of visualisation
Digit height	0.35 "
Performances	
Reading accuracy	± 0.1 % of f.s.
Thermal drift	0.005 % of f.s./°C
Reading rate	3 read/second
Power supply voltage	Self-powered from the input signal
Electromagnetic Compatibility (EMC) (for industrial environments)	Immunity: EN 61000-6-2 Emission: EN 61000-6-4
Operative temperature	-10 ÷ 60 °C
Storage temperature	-40 ÷ 80 °C
Relative Humidity (not condensing)	0 ÷ 90%
Weight	about 100 g

CONFIGURATION AND CALIBRATION DAT 733

- CONFIGURATION

Scale of visualisation setting

Refer to section "Programming tables" and set the input scale of visualisation by the proper dip-switch as indicated.

Decimal point setting

Refer to section "Programming tables" and set the position of the decimal point by the proper dip-switch as indicated.

- CALIBRATION

Refer to section "Dimension and Regulations".

- 1) Connect on input a simulator of active current signal.
- 2) Set the simulator at the minimum value of the input signal (4 mA).
- 3) By the ZERO potentiometer, adjust the minimum value of visualisation.
- 4) Set the simulator at the maximum value of the input signal (20 mA).
- 5) By the SPAN potentiometer, adjust the maximum value of visualisation.

PROGRAMMING TABLES

RANGE OF VISUALISATION SETTING

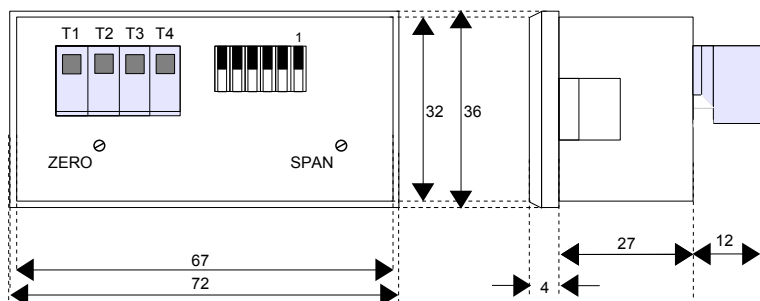
RANGE	SW1	SW2
100 ÷ 700 points	●	●
700 ÷ 1400 points	●	
1400 ÷ 2000 points		

DECIMAL POINT SETTING

POSITION	SW4	SW5	SW6
1.999			●
19.99	●		
199.9		●	

● : DIP-SWITCH ON

DIMENSIONS (mm) AND REGULATIONS



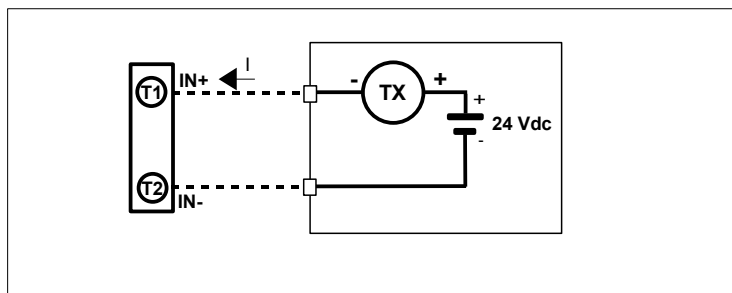
INSTALLATION INSTRUCTIONS

The device DAT 733 is suitable for mounting on panel (DIN 43700); the device needs a panel cut out of 68 * 33 mm (W*H).

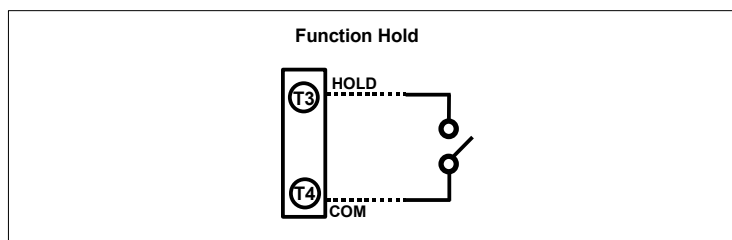
It is necessary to install the device in a place without vibrations; avoid to routing conductors near power signal cables .

DAT 733 CONNECTIONS

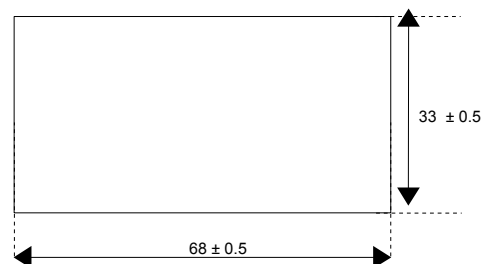
INPUT CONNECTIONS



COMPLEMENTARY FUNCTION CONNECTIONS



PANEL CUT-OUT (mm)



HOW TO ORDER

The DAT 733 is provided with the scale of visualisation requested by the Customer in phase of order; if the scale of visualisation is not specified, the device will be supplied with the following default scale:

ORDER CODE:

DAT 733 0÷2000 points

Scale of visualisation